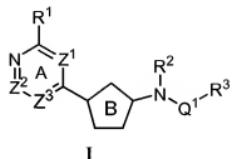


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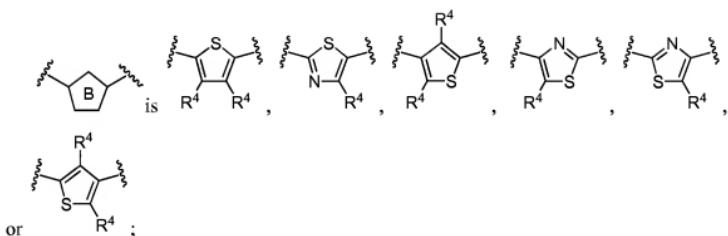
CLAIMS

1. (Previously presented) A compound of formula I:



I

or a pharmaceutically acceptable salt thereof, wherein:



or ;

R<sup>1</sup> is halogen, CN, NO<sub>2</sub>, or V<sub>m</sub>R;

Z<sup>1</sup> and Z<sup>3</sup> are each independently CR<sup>Z</sup>;

Z<sup>2</sup> is CR<sup>1</sup>;

each occurrence of R<sup>Z</sup> is independently halogen, CN, NO<sub>2</sub>, or U<sub>n</sub>R';

R<sup>2</sup> is U<sub>n</sub>R';

each occurrence of R<sup>4</sup> is independently halogen, CN, NO<sub>2</sub>, or V<sub>m</sub>R;

each occurrence of U or V is independently an optionally substituted C<sub>1-6</sub> alkylidene chain, wherein up to two methylene units of the chain are optionally and independently replaced by -NR-, -S-, -O-, -CS-, -OCO-, -COCO-, -CONR-, -NRCO-, -NRCO<sub>2</sub>-,

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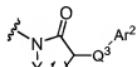
-SO<sub>2</sub>NR-, -NRSO<sub>2</sub>-, -CONRNR-, -NRCONR-, -OCONR-, -NRNR-, -NRSO<sub>2</sub>NR-, -SO-, or -SO<sub>2</sub>;

m and n are each independently 0 or 1;  
each occurrence of R is independently hydrogen or an optionally substituted C<sub>1-6</sub> aliphatic group; and each occurrence of R' is independently hydrogen or an optionally substituted C<sub>1-6</sub> aliphatic group, or a 3-8-membered saturated, partially unsaturated, or fully unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or R and R', two occurrences of R, or two occurrences of R', are taken together with the atom(s) to which they are bound to form an optionally substituted 3-12 membered saturated, partially unsaturated, or fully unsaturated monocyclic or bicyclic ring having 0-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

Q<sup>1</sup> is -CO-;

R<sup>3</sup> is Q<sup>2</sup>-Ar<sup>1</sup>, wherein Q<sup>2</sup> is -(CHR<sup>6</sup>)<sub>q</sub>-, where q is 1, 2, or 3,

or R<sup>2</sup> and Q<sup>1</sup>-R<sup>3</sup>, taken together with the intervening nitrogen atom, form the cyclic



group: , where s is 1 or 2, each occurrence of Y is independently, as valency and stability permit, -CO-, -CS-, -SO<sub>2</sub>-, -O-, -S-, -NR<sup>5</sup>-, or -C(R<sup>5</sup>)<sub>2</sub>-, and R<sup>5</sup> is U<sub>n</sub>R';

Q<sup>3</sup> is a bond or a C<sub>1-6</sub> alkylidene chain, wherein up to two methylene units of the chain are each optionally and independently replaced by -S-, -O-, -CS-, -CO<sub>2</sub>-, -OCO-, -CO-, -COCO-, -CONR'-, -NR'CO-, -NR'CO<sub>2</sub>-, -SO<sub>2</sub>NR'-, -NR'SO<sub>2</sub>-, -CONR'NR'-, -NR'CONR'-, -OCONR'-, -NR'NR'-, -NR'SO<sub>2</sub>NR'-, -SO-, or -SO<sub>2</sub>-, and wherein any carbon atom in the one or more methylene units is optionally substituted with one or two occurrences of R<sup>6</sup>, wherein each occurrence of R<sup>6</sup> is independently halogen, CN, NO<sub>2</sub>, or U<sub>n</sub>R', or two occurrences of R<sup>6</sup>, or R' and R<sup>6</sup>, taken together with the atoms to which they

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are bound, form an optionally substituted 3-6-membered cycloalkyl, heterocyclyl, aryl or heteroaryl ring; and

Ar<sup>1</sup> is a 5-8 membered saturated, partially unsaturated, or fully unsaturated monocyclic ring having 0-3 heteroatoms independently selected from oxygen or sulfur, or an 8-12 membered saturated, partially unsaturated, or fully unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from oxygen or sulfur; wherein Ar<sup>1</sup> is optionally substituted with 0-5 independent occurrences of TR<sup>7</sup>; wherein T is a bond or is a C<sub>1</sub>-C<sub>6</sub> alkylidene chain wherein up to two methylene units of T are optionally and independently replaced by -NR-, -S-, -O-, -CS-, -CO<sub>2</sub>-, -OCO-, -CO-, -COCO-, -CONR-, -NRCO-, -NRCO<sub>2</sub>-, -SO<sub>2</sub>NR-, -NRSO<sub>2</sub>-, -CONRNR-, -NRCONR-, -OCONR-, -NRNR-, -NRSO<sub>2</sub>NR-, -SO-, or -SO<sub>2</sub>;

Ar<sup>2</sup> is a 5-8 membered saturated, partially unsaturated, or fully unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-12 membered saturated, partially unsaturated, or fully unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur; wherein Ar<sup>2</sup> is optionally substituted with 0-5 independent occurrences of TR<sup>7</sup>; wherein T is a bond or is a C<sub>1</sub>-C<sub>6</sub> alkylidene chain wherein up to two methylene units of T are optionally and independently replaced by -NR-, -S-, -O-, -CS-, -CO<sub>2</sub>-, -OCO-, -CO-, -COCO-, -CONR-, -NRCO-, -NRCO<sub>2</sub>-, -SO<sub>2</sub>NR-, -NRSO<sub>2</sub>-, -CONRNR-, -NRCONR-, -OCONR-, -NRNR-, -NRSO<sub>2</sub>NR-, -SO-, or -SO<sub>2</sub>;

each occurrence of R<sup>7</sup> is independently R', halogen, NO<sub>2</sub>, or CN;

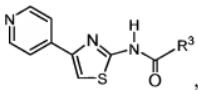
each of the optional substituents of said aryl or heteroaryl ring is selected from halogen; -R°; -OR°; -SR°; phenyl optionally substituted with R°; -O(phenyl), optionally substituted with R°; -(CH<sub>2</sub>)<sub>1-2</sub>(phenyl), optionally substituted with R°; -CH=CH(phenyl), optionally substituted with R°; -NO<sub>2</sub>; -CN; -N(R°)<sub>2</sub>; -NR°C(O)R°; -NR°C(S)R°; -NR°C(O)N(R°)<sub>2</sub>; -NR°C(S)N(R°)<sub>2</sub>; -NR°CO<sub>2</sub>R°; -NR°NR°C(O)R°; -NR°NR°C(O)N(R°)<sub>2</sub>; -NR°NR°CO<sub>2</sub>R°; -C(O)C(O)R°; -C(O)CH<sub>2</sub>C(O)R°; -CO<sub>2</sub>R°;

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-C(O)R°; -C(S)R°; -C(O)N(R°)<sub>2</sub>; -C(S)N(R°)<sub>2</sub>; -OC(O)N(R°)<sub>2</sub>; -OC(O)R°;  
-C(O)N(OR°)R°; -C(NOR°)R°; -S(O)<sub>2</sub>R°; -S(O)<sub>3</sub>R°; -SO<sub>2</sub>N(R°)<sub>2</sub>; -S(O)R°;  
-NR°SO<sub>2</sub>N(R°)<sub>2</sub>; -NR°SO<sub>2</sub>R°; -N(OR°)R°; -C(=NH)-N(R°)<sub>2</sub>; -P(O)<sub>2</sub>R°; -PO(R°)<sub>2</sub>;  
-OPO(R°)<sub>2</sub>; -(CH<sub>2</sub>)<sub>0-2</sub>NHC(O)R°; wherein each independent occurrence of R° is selected  
from hydrogen, an optionally substituted C<sub>1-6</sub> aliphatic, an unsubstituted 5-6 membered  
heteroaryl or heterocyclic ring, phenyl, -O(phenyl), or -CH<sub>2</sub>(phenyl), wherein optional  
substituents on the aliphatic group of R° are selected from NH<sub>2</sub>, NH(C<sub>1-4</sub>aliphatic),  
N(C<sub>1-4</sub>aliphatic)<sub>2</sub>, halogen, C<sub>1-4</sub>aliphatic, OH, O(C<sub>1-4</sub>aliphatic), NO<sub>2</sub>, CN, CO<sub>2</sub>H,  
CO<sub>2</sub>(C<sub>1-4</sub>aliphatic), O(haloC<sub>1-4</sub> aliphatic), or haloC<sub>1-4</sub>aliphatic, or two independent  
occurrences of R°, on the same substituent or different substituents, taken together with  
the atom(s) to which each R° group is bound, form a 3-12 membered saturated, partially  
unsaturated, or fully unsaturated monocyclic or bicyclic ring having 0-4 heteroatoms  
independently selected from nitrogen, oxygen, or sulfur; and

each of the optional substituents on said alkylidene chain, aliphatic, cycloalkyl, or  
heterocyclyl is selected from the list of optional substituents of optional substituents for  
aryl and heteroaryl rings and further comprise =O, =S, =NNHR\*, =NN(R\*)<sub>2</sub>,  
=NNHC(O)R\*, =NNHCO<sub>2</sub>(alkyl), =NNHSO<sub>2</sub>(alkyl), or =NR\*, where each R\* is  
independently selected from hydrogen or a C<sub>1-6</sub> aliphatic group;

provided that:



for compounds having the structure:

R<sup>3</sup> is not any one of the following groups: -CH<sub>2</sub>(3-NHCOPh-phenyl), -CH<sub>2</sub>-pyrrolidine,  
unsubstituted benzyl, -CH<sub>2</sub>-naphthyl, -CH<sub>2</sub>CH<sub>2</sub>-3-(4-Cl-phenyl)-1-phenyl-1-H-pyrazol-4-  
yl, or -CH<sub>2</sub>(1,3-dioxoisooindole).

2-3. (Canceled)

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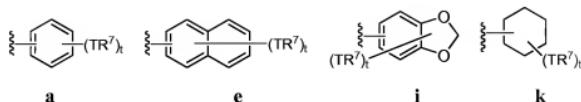
4. (Previously presented) The compound of claim 1, wherein R<sup>2</sup> is hydrogen, or is U<sub>n</sub>R', where n is 1, and U is a C<sub>1-6</sub> alkylidene chain wherein one or two methylene units are optionally and independently replaced by O, NR, S, or C(O).

5. (Previously presented) The compound of claim 1, wherein U is -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>S-, -CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>S-, -CH<sub>2</sub>CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>S-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -(CH<sub>2</sub>)<sub>4</sub>NHCH<sub>2</sub>-, -(CH<sub>2</sub>)<sub>3</sub>NHCH<sub>2</sub>CH<sub>2</sub>-, or -CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>-, and preferred R' groups are hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, optionally substituted tetrahydropyranyl, pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl, thiomorpholinyl, pyridinyl, phenyl, or cyclohexyl, or R and R', taken together with the nitrogen atom to which they are bound, form an optionally substituted 5- or 6-membered heterocycl ring.

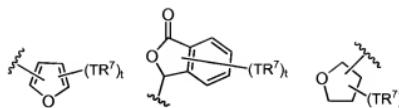
6-7. (Canceled)

8. (Previously presented) The compound of claim 1, wherein R<sup>6</sup> is CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, OH, OMe, OEt, NH<sub>2</sub>, NH(Me), NH(Et), N(Me)(Me), CH<sub>2</sub>NH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, NHCO<sub>2</sub>t-butyl, phenyl, cyclopentyl, methyl, ethyl, isopropyl, cyclopropyl, NH(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub>, NH(CH<sub>2</sub>)<sub>2</sub>NH<sub>2</sub>, NH(CH<sub>2</sub>)<sub>2</sub>NHEt, NHCH<sub>2</sub>pyridyl, NHSO<sub>2</sub>phenyl, NHC(O)CH<sub>2</sub>C(O)Or-butyl, NHC(O)CH<sub>2</sub>NH<sub>3</sub>, and NHCH<sub>2</sub>-imidazol-4-yl.

9. (Previously presented) The compound of claim 3, wherein Ar<sup>1</sup> is:



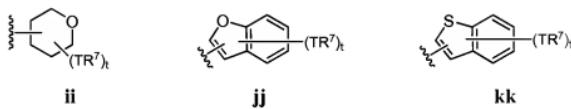
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**t**

**cc**

**ee**



**ii**

**jj**

**kk**



**mm**

**oo**

**pp**

wherein  $t$  is 0, 1, 2, 3, 4 or 5, and wherein any  $Ar^1$  is bonded to  $Q^2$  through any substitutable carbon atom, and wherein one or more hydrogen atoms on any substitutable carbon atom is substituted with one or more independent occurrences of  $TR^7$ .

10. (Previously presented) The compound of claim 9, wherein  $Ar^1$  is **a**, **e**, **i**, **k**, **cc**, **jj**, or **pp**.

11. (Original) The compound of claim 9, wherein T is a bond or is an optionally substituted  $C_{1-6}$  alkylidene chain wherein one or two methylene units are optionally and independently replaced by  $-O-$ ,  $-NR-$ ,  $-S-$ ,  $-SO_2-$ ,  $-COO-$ ,  $-CO-$ ,  $-OSO_2-$ ,  $-NRSO_2-$ ,  $-CONR-$ , or  $-SO_2NR-$ , and  $R^7$  is  $R'$  or halogen.

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12. (Original) The compound of claim 9, wherein each occurrence of TR<sup>7</sup> is independently -C<sub>1-3</sub>alkyl, -OR', -SR', -CF<sub>3</sub>, -OCF<sub>3</sub>, -SCF<sub>3</sub>, -F, -Cl, I, -Br, -COOR', -COR', -O(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -O(CH<sub>2</sub>)N(R)(R'), -O(CH<sub>2</sub>)<sub>4</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>CON(R)(R'), -O(CH<sub>2</sub>)CON(R)(R'), -C(O)N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>OR', -(CH<sub>2</sub>)<sub>3</sub>OR', -(CH<sub>2</sub>)<sub>2</sub>OR', -CH<sub>2</sub>OR', optionally substituted phenyl or benzyl, -N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -(CH<sub>2</sub>)N(R)(R'), or SO<sub>2</sub>N(R)(R'), NRSO<sub>2</sub>R', CON(R)(R'), or -OSO<sub>2</sub>R'.

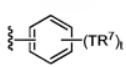
13. (Canceled)

14. (Previously presented) The compound of claim 1, wherein Q<sup>3</sup> is a direct bond, or is -(CHR<sup>6</sup>)<sub>q</sub>-, -(CHR<sup>6</sup>)<sub>q</sub>O-, -(CHR<sup>6</sup>)<sub>q</sub>S-, -(CHR<sup>6</sup>)<sub>q</sub>S(O)<sub>2</sub>-, -(CHR<sup>6</sup>)<sub>q</sub>S(O)-, -(CHR<sup>6</sup>)<sub>q</sub>NR-, or -(CHR<sup>6</sup>)<sub>q</sub>C(O)-, wherein q is 0, 1, 2, or 3, and R<sup>6</sup> is R', -N(R)(R'), -(CH<sub>2</sub>)<sub>1-4</sub>N(R)(R'), -OR', -(CH<sub>2</sub>)<sub>1-4</sub>OR', -NR(CH<sub>2</sub>)<sub>1-4</sub>N(R)(R'), -NR(CH<sub>2</sub>)<sub>1-4</sub>SO<sub>2</sub>R', -NR(CH<sub>2</sub>)<sub>1-4</sub>COOR', or -NR(CH<sub>2</sub>)<sub>1-4</sub>COR', or two occurrences of R<sup>6</sup>, taken together with the atoms to which they are bound, form an optionally substituted 3-6-membered saturated, partially unsaturated, or fully unsaturated ring.

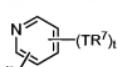
15. (Original) The compound of claim 14, wherein R<sup>6</sup> is CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, OH, OMe, OEt, NH<sub>2</sub>, NH(Me), NH(Et), N(Me)(Me), CH<sub>2</sub>NH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, NHCO<sub>2</sub>t-butyl, phenyl, cyclopentyl, methyl, ethyl, isopropyl, cyclopropyl, NH(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub>, NH(CH<sub>2</sub>)<sub>2</sub>NH<sub>2</sub>, NH(CH<sub>2</sub>)<sub>2</sub>NHEt, NHCH<sub>2</sub>pyridyl, NHSO<sub>2</sub>phenyl, NHC(O)CH<sub>2</sub>C(O)Or-butyl, NHC(O)CH<sub>2</sub>NH<sub>3</sub>, and NHCH<sub>2</sub>-imidazol-4-yl.

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16. (Previously presented) The compound of claim 1, wherein Ar<sup>2</sup> is:



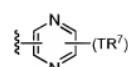
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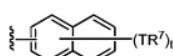
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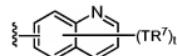
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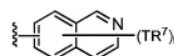
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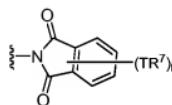
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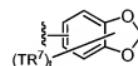
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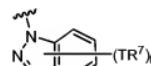
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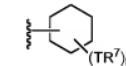
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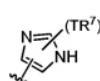
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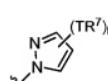
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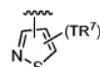
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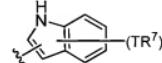
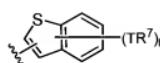
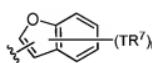
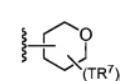
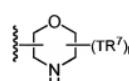
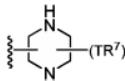
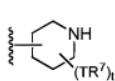
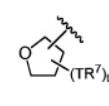
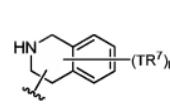
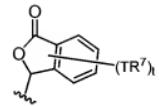
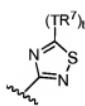
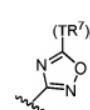
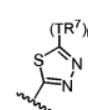
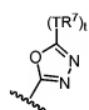
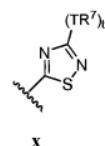
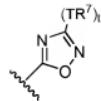
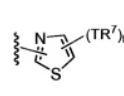
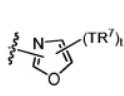
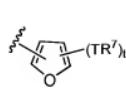


r

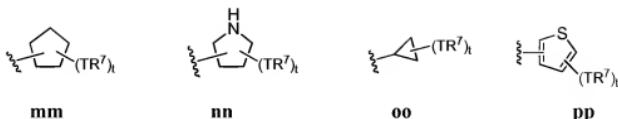


s

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wherein t is 0, 1, 2, 3, 4 or 5, and wherein any Ar<sup>2</sup> is bonded to Q<sup>3</sup> through any substitutable nitrogen or carbon atom, and wherein one or more hydrogen atoms on any substitutable nitrogen or carbon atom is substituted with one or more independent occurrences of TR<sup>7</sup>.

17. (Original) The compound of claim 16, wherein Ar<sup>2</sup> is **a**, **b**, **e**, **g**, **h**, **i**, **j**, **k**, **n**, **r**, **ee**, **dd**, **ff**, **jj**, **ll**, or **pp**.
18. (Original) The compound of claim 16, wherein T is a bond or is an optionally substituted C<sub>1-6</sub> alkylidene chain wherein one or two methylene units are optionally and independently replaced by -O-, -NR-, -S-, -SO<sub>2</sub>-, -COO-, -CO-, -OSO<sub>2</sub>-, -NRSO<sub>2</sub>, -CONR-, or -SO<sub>2</sub>NR-, and R<sup>7</sup> is R' or halogen.
19. (Original) The compound of claim 16, wherein each occurrence of TR<sup>7</sup> is independently -C<sub>1-3</sub>alkyl, -OR', -SR', -CF<sub>3</sub>, -OCF<sub>3</sub>, -SCF<sub>3</sub>, -F, -Cl, I, -Br, -COOR', -COR', -O(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -O(CH<sub>2</sub>)N(R)(R'), -O(CH<sub>2</sub>)<sub>4</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>CON(R)(R'), -O(CH<sub>2</sub>)CON(R)(R'), -C(O)N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>OR', -(CH<sub>2</sub>)<sub>3</sub>OR', -(CH<sub>2</sub>)<sub>2</sub>OR', -CH<sub>2</sub>OR', optionally substituted phenyl or benzyl, -N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -(CH<sub>2</sub>)N(R)(R'), or SO<sub>2</sub>N(R)(R'), NRSO<sub>2</sub>R', CON(R)(R'), or -OSO<sub>2</sub>R'.

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20. (Previously presented) The compound of claim 1, wherein R<sup>5</sup> is hydrogen, (CH<sub>2</sub>)<sub>3</sub>OR', (CH<sub>2</sub>)<sub>2</sub>OR', (CH<sub>2</sub>)OR', (CH<sub>2</sub>)<sub>3</sub>N(R')<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>N(R')<sub>2</sub>, (CH<sub>2</sub>)N(R')<sub>2</sub>, or C<sub>1-4</sub>aliphatic.

21-22. (Canceled)

23. (Original) The compound of claim 1, wherein each occurrence of R<sup>1</sup> is independently hydrogen, halogen, optionally substituted C<sub>1-C<sub>4</sub></sub>aliphatic, OR, SR, or N(R)<sub>2</sub>.

24. (Previously presented) The compound of claim 23, wherein each occurrence of R<sup>1</sup> is independently hydrogen, halogen, -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -OH, -OCH<sub>3</sub>, -SCH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, -N(CH<sub>2</sub>CH<sub>3</sub>)<sub>2</sub>, -NH(CH<sub>2</sub>)<sub>2</sub>NHCH<sub>3</sub>, -NH(cyclopropyl), -NH(CH<sub>2</sub>)cyclopropyl, or -NH(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>.

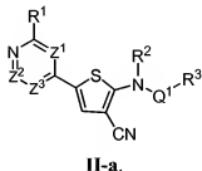
25. (Original) The compound of claim 1, wherein each occurrence of R<sup>Z</sup> is independently hydrogen, halogen, C<sub>1-C<sub>4</sub></sub>aliphatic, OH, OR', or N(R)(R').

26. (Original) The compound of claim 25, wherein each occurrence of R<sup>Z</sup> is independently hydrogen, halogen, Me, OH, OMe, NH<sub>2</sub>, or N(Me)<sub>2</sub>.

27. (Previously presented) The compound of claim 1, wherein R<sup>4</sup> groups are each independently hydrogen, C<sub>1-6</sub>aliphatic, CN, C(=O)N(R)<sub>2</sub>, or halogen.

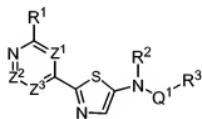
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28. (Previously presented) The compound of claim 1, wherein one occurrence of R<sup>4</sup> is CN and compounds have the general structure **II-a**:



**II-a.**

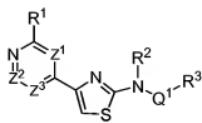
29. (Previously presented) The compound of claim 1, wherein R<sup>4</sup> is hydrogen and compounds have the general structure **III-a**:



**III-a.**

30. (Canceled)

31. (Previously presented) The compound of claim 1, wherein R<sup>4</sup> is hydrogen and compounds have the general structure **VII-a**:

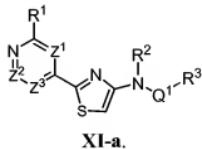


**VII-a.**

32. (Canceled)

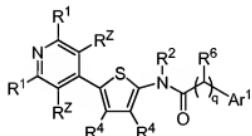
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33. (Previously presented) The compound of claim 1, wherein R<sup>4</sup> is hydrogen and compounds have the general structure **XI-a**:

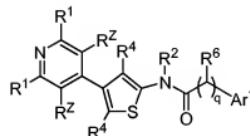


**XI-a.**

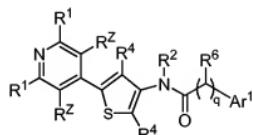
34. (Previously presented) The compound of claim 9, wherein Q<sup>1</sup> is -CO-, Q<sup>2</sup> is CHR<sup>6</sup>, q is 1 2, or 3, and compounds have one of formulas **XIV**, **XV**, or **XVI**:



**XIV**



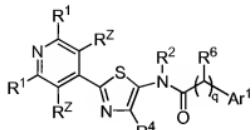
**XV**



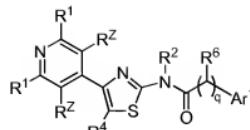
**XVI.**

35. (Previously presented) The compound of claim 9, wherein Q<sup>1</sup> is -CO-, Q<sup>2</sup> is CHR<sup>6</sup>, q is 1, 2 or 3, and compounds have one of formulas **XVII**, **XVIII**, or **XIX**:

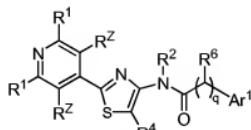
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XVII



XVIII



XIX.

36. (Previously presented) The compound of claims 34 or 35, wherein compound variables are selected from one of more of the following groups:

- each occurrence of R<sup>1</sup> is independently hydrogen, halogen, optionally substituted C<sub>1</sub>-C<sub>4</sub>aliphatic, OR, SR, or N(R)<sub>2</sub>;
- each occurrence of R<sup>1</sup> is independently hydrogen, halogen, -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -OH, -OCH<sub>3</sub>, -SCH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, -N(CH<sub>2</sub>CH<sub>3</sub>)<sub>2</sub>, -NH(CH<sub>2</sub>)<sub>2</sub>NHCH<sub>3</sub>, -NH(cyclopropyl), -NH(CH<sub>2</sub>)cyclopropyl, or -NH(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>;
- each occurrence of R<sup>Z</sup> is independently hydrogen, halogen, optionally substituted C<sub>1</sub>-C<sub>4</sub>aliphatic, OH, O(R'), or N(R)(R');
- each occurrence of R<sup>Z</sup> is independently hydrogen, halogen, Me, OH, OMe, NH<sub>2</sub>, or N(Me)<sub>2</sub>;
- R<sup>2</sup> is hydrogen, or is U<sub>n</sub>R', where n is 1, and U is -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>S-, -CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>S-, -CH<sub>2</sub>CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>S-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -(CH<sub>2</sub>)<sub>4</sub>NHCH<sub>2</sub>-, -(CH<sub>2</sub>)<sub>3</sub>NHCH<sub>2</sub>CH<sub>2</sub>-, or

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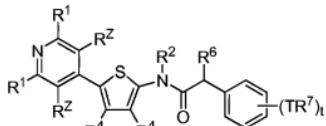
-CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>-, and R' groups are hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, optionally substituted tetrahydropyranyl, pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl, thiomorpholinyl, pyridinyl, phenyl, or cyclohexyl, or R and R', taken together with the nitrogen atom to which they are bound, form an optionally substituted 5- or 6-membered heterocycl ring;

- f) each occurrence of R<sup>4</sup> is independently hydrogen, C<sub>1</sub>-aliphatic, CN, COR, COOR, CON(R)<sub>2</sub>, or halogen;
- g) q is 1, 2, or 3;
- h) R<sup>6</sup> is R', -N(R)(R'), -(CH<sub>2</sub>)<sub>1-4</sub>N(R)(R'), -OR', -(CH<sub>2</sub>)<sub>1-4</sub>OR', -NR(CH<sub>2</sub>)<sub>1-4</sub>N(R)(R'), -NR(CH<sub>2</sub>)<sub>1-4</sub>SO<sub>2</sub>R', -NR(CH<sub>2</sub>)<sub>1-4</sub>COOR', or -NR(CH<sub>2</sub>)<sub>1-4</sub>COR', or two occurrences of R<sup>6</sup>, taken together with the atoms to which they are bound, form an optionally substituted 3-6-membered saturated, partially unsaturated, or fully unsaturated ring;
- i) R<sup>6</sup> is CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, OH, OMe, OEt, NH<sub>2</sub>, NH(Me), NH(Et), N(Me)(Me), CH<sub>2</sub>NH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, NHCO<sub>2</sub>t-butyl, phenyl, cyclopentyl, methyl, ethyl, isopropyl, cyclopropyl, NH(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub>, NH(CH<sub>2</sub>)<sub>2</sub>NH<sub>2</sub>, NH(CH<sub>2</sub>)<sub>2</sub>NHEt, NHCH<sub>2</sub>pyridyl, NHSO<sub>2</sub>phenyl, NHC(O)CH<sub>2</sub>C(O)Or-butyl, NHC(O)CH<sub>2</sub>NH<sub>2</sub>, and NHCH<sub>2</sub>-imidazol-4-yl;
- j) Ar<sup>1</sup> is ring **a**, **e**, **i**, **k**, **cc**, **jj**, or **pp** wherein t is 0, 1, 2, or 3, and T is a bond or is an optionally substituted C<sub>1-6</sub> alkylidene chain wherein one or two methylene units are optionally and independently replaced by -O-, -NR-, -S-, -SO<sub>2</sub>-, -COO-, -CO-, -OSO<sub>2</sub>-, -NRSO<sub>2</sub>-, -CONR-, or -SO<sub>2</sub>NR-, and R<sup>7</sup> is R' or halogen; or
- k) Ar<sup>1</sup> is ring **a**, **e**, **i**, **k**, **cc**, **jj**, or **pp** wherein t is 0, 1, 2, or 3, and each occurrence of TR<sup>7</sup> is independently -C<sub>1-3</sub>alkyl, -OR', -SR', -CF<sub>3</sub>, -OCF<sub>3</sub>, -SCF<sub>3</sub>, -F, -Cl, I, -Br, -COR', -COR-, -O(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -O(CH<sub>2</sub>)N(R)(R'), -O(CH<sub>2</sub>)<sub>4</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>CON(R)(R'), -O(CH<sub>2</sub>)CON(R)(R'), -C(O)N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>OR', -(CH<sub>2</sub>)<sub>3</sub>OR', -(CH<sub>2</sub>)<sub>2</sub>OR', -CH<sub>2</sub>OR',

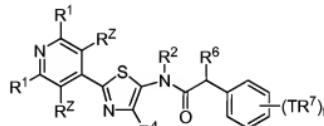
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optionally substituted phenyl or benzyl, -N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -(CH<sub>2</sub>)N(R)(R'), -SO<sub>2</sub>N(R)(R'), -NRSO<sub>2</sub>R', -CON(R)(R'), or -OSO<sub>2</sub>R'.

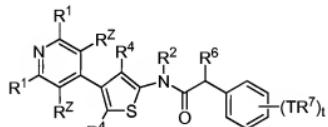
37. (Previously presented) The compound of claim 34 or 35, q is 1, and Ar<sup>1</sup> is optionally substituted phenyl and compounds of general formula **XIV-A** through **XIX-A** are provided:



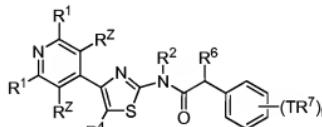
**XIV-A**



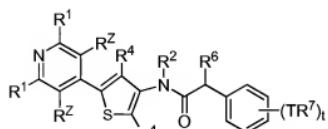
**XV-A**



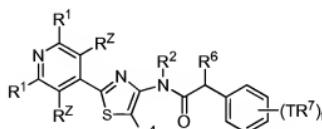
**XVI-A**



**XVII-A**



**XVIII-A**



**XIX-A**

wherein:

each occurrence of R<sup>1</sup> is hydrogen;

each occurrence of R<sup>Z</sup> is hydrogen;

R<sup>2</sup> is hydrogen, or is U<sub>n</sub>R', where n is 1, and U is -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-,

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-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>S-, -CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>O-,  
-CH<sub>2</sub>CH<sub>2</sub>S-, -CH<sub>2</sub>CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>S-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NR-,  
-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>S-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NR-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-,  
-(CH<sub>2</sub>)<sub>4</sub>NHCH<sub>2</sub>-, -(CH<sub>2</sub>)<sub>3</sub>NHCH<sub>2</sub>CH<sub>2</sub>-, or -CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>-, and R' groups are  
hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, optionally substituted tetrahydropyranyl, pyrrolidinyl, piperidinyl,  
piperazinyl, morpholinyl, thiomorpholinyl, pyridinyl, phenyl, or cyclohexyl, or R and R',  
taken together with the nitrogen atom to which they are bound, form an optionally  
substituted 5- or 6-membered heterocycl ring;

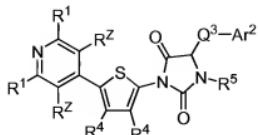
each occurrence of R<sup>4</sup> is independently hydrogen, C<sub>1</sub>-6aliphatic, CN, CON(R)<sub>2</sub>, or  
halogen;

R<sup>6</sup> is R', -N(R)(R'), -(CH<sub>2</sub>)<sub>1-4</sub>N(R)(R'), -OR', -(CH<sub>2</sub>)<sub>1-4</sub>OR', -NR(CH<sub>2</sub>)<sub>1-4</sub>N(R)(R'),  
-NR(CH<sub>2</sub>)<sub>1-4</sub>SO<sub>2</sub>R', -NR(CH<sub>2</sub>)<sub>1-4</sub>COOR', or -NR(CH<sub>2</sub>)<sub>1-4</sub>COR'; and

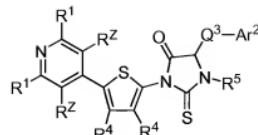
t is 0, 1, 2, or 3, and each occurrence of TR<sup>7</sup> is independently -C<sub>1-3</sub>alkyl, -OR',  
-SR', -CF<sub>3</sub>, -OCF<sub>3</sub>, -SCF<sub>3</sub>, -F, -Cl, I, -Br, -COOR', -COR', -O(CH<sub>2</sub>)<sub>4</sub>N(R)(R'),  
-O(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -O(CH<sub>2</sub>)N(R)(R'), -O(CH<sub>2</sub>)<sub>4</sub>CON(R)(R'),  
-O(CH<sub>2</sub>)<sub>3</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>CON(R)(R'), -O(CH<sub>2</sub>)CON(R)(R'), -C(O)N(R)(R'),  
-(CH<sub>2</sub>)<sub>4</sub>OR', -(CH<sub>2</sub>)<sub>3</sub>OR', -(CH<sub>2</sub>)<sub>2</sub>OR', -CH<sub>2</sub>OR', optionally substituted phenyl or benzyl,  
-N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -(CH<sub>2</sub>)N(R)(R'),  
-SO<sub>2</sub>N(R)(R'), -NRSO<sub>2</sub>R', -CON(R)(R'), or -OSO<sub>2</sub>R'.

38. (Previously presented) The compound of claim 16, wherein R<sup>2</sup> and Q<sup>1</sup>-R<sup>3</sup>, taken  
together with the atoms to which they are bound form a 5-membered cyclic group, and  
compounds have the general formula **XX** through **XXV**:

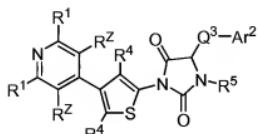
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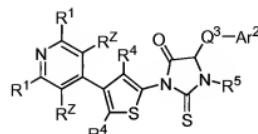
XX



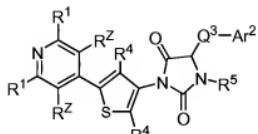
XXI



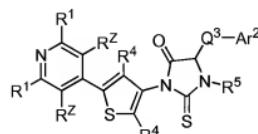
XXII



XXIII

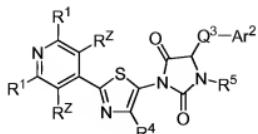


XXIV

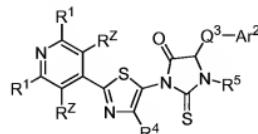


XXV.

39. (Previously presented) The compound of claim 16, R<sup>2</sup> and Q<sup>1</sup>-R<sup>3</sup>, taken together with the atoms to which they are bound form a 5-membered cyclic group, and compounds have the general formula **XXVI** through **XXXI**:

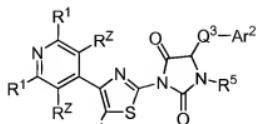


XXVI

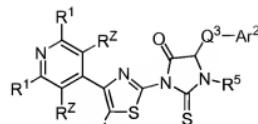


XXVII

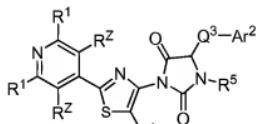
Applicants: Jingrong Cao et al.  
 Application No.: 10/696,862



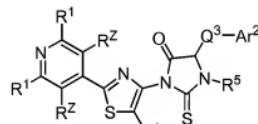
**XXVIII**



**XXIX**

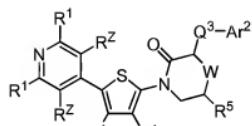


**XXX**

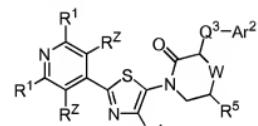


**XXXI.**

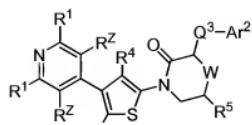
40. (Previously presented) The compound of claim 16, wherein  $R^2$  and  $Q^1-R^3$ , taken together with the atoms to which they are bound form a 6-membered cyclic group, and compounds have the general formula **XXXII** through **XXXVII**:



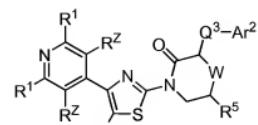
**XXXII**



**XXXIII**

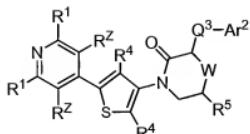


**XXXIV**

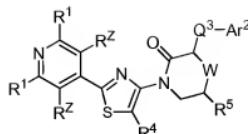


**XXXV**

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XXXVI



XXXVII

wherein W is O, NR<sup>5</sup>, or CHR<sup>5</sup>.

41. (Original) The compound of claims 38, 39 or 40, wherein compound variables are selected from one of more of the following groups:

- a) each occurrence of R<sup>1</sup> is independently hydrogen, halogen, optionally substituted C<sub>1</sub>-C<sub>4</sub>aliphatic, OR, SR, or N(R)<sub>2</sub>;
- b) each occurrence of R<sup>2</sup> is independently hydrogen, halogen, optionally substituted C<sub>1</sub>-C<sub>4</sub>aliphatic, OH, OR' or N(R)(R');
- c) each occurrence of R<sup>4</sup> is independently hydrogen, C<sub>1-6</sub>aliphatic, CN, COR, COOR, CON(R)<sub>2</sub>, or halogen;
- d) R<sup>5</sup> is hydrogen, (CH<sub>2</sub>)<sub>2</sub>OR', (CH<sub>2</sub>)<sub>2</sub>OR', (CH<sub>2</sub>)OR', (CH<sub>2</sub>)<sub>3</sub>N(R')<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>N(R')<sub>2</sub>, (CH<sub>2</sub>)N(R')<sub>2</sub>, or C<sub>1-4</sub>aliphatic;
- e) Q<sup>3</sup> is a direct bond, or is -(CHR<sup>6</sup>)<sub>q</sub>-, -(CHR<sup>6</sup>)<sub>q</sub>O-, -(CHR<sup>6</sup>)<sub>q</sub>S-, -(CHR<sup>6</sup>)<sub>q</sub>S(O)<sub>2</sub>-, -(CHR<sup>6</sup>)<sub>q</sub>S(O)-, -(CHR<sup>6</sup>)<sub>q</sub>NR-, or -(CHR<sup>6</sup>)<sub>q</sub>C(O)-, wherein q is 0, 1, 2, or 3; and
- f) Ar<sup>2</sup> is ring a, b, e, g, h, i, j, k, n, r, ee, dd, ff, jj, ll, or pp, wherein t is 0, 1, 2, or 3, and T is a bond or is an optionally substituted C<sub>1-6</sub> alkylidene chain wherein one or two methylene units are optionally and independently replaced by -O-, -NR-, -S-, -SO<sub>2</sub>-, -COO-, -CO-, -OSO<sub>2</sub>-, -NRSO<sub>2</sub>, -CONR-, or -SO<sub>2</sub>NR-, and R<sup>7</sup> is R' or halogen.

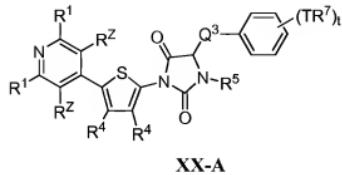
42. (Previously presented) The compound of claims 38, 39 or 40, wherein compound variables are selected from one of more of the following groups:

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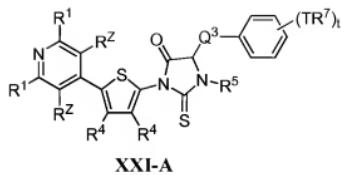
- a) each occurrence of R<sup>1</sup> is independently hydrogen, halogen, -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -OH, -OCH<sub>3</sub>, -SCH<sub>3</sub>, -NH<sub>2</sub>, -N(CH<sub>3</sub>)<sub>2</sub>, -N(CH<sub>2</sub>CH<sub>3</sub>)<sub>2</sub>, NH(CH<sub>2</sub>)<sub>2</sub>NHCH<sub>3</sub>, NH(cyclopropyl), NH(CH<sub>2</sub>)cyclopropyl, or NH(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>;
- b) each occurrence of R<sup>Z</sup> is independently hydrogen, halogen, Me, OH, OMe, NH<sub>2</sub>, or N(Me)<sub>2</sub>;
- c) each occurrence of R<sup>4</sup> is independently hydrogen, C<sub>1-6</sub>aliphatic, CN, CON(R)<sub>2</sub>, or halogen;
- d) R<sup>5</sup> is hydrogen, (CH<sub>2</sub>)<sub>3</sub>OR', (CH<sub>2</sub>)<sub>2</sub>OR', (CH<sub>2</sub>)OR', (CH<sub>2</sub>)<sub>3</sub>N(R')<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>N(R')<sub>2</sub>, (CH<sub>2</sub>)N(R')<sub>2</sub>, or C<sub>1-4</sub>aliphatic;
- e) Q<sup>3</sup> is a direct bond, or is -(CHR<sup>6</sup>)<sub>q</sub>- , -(CHR<sup>6</sup>)<sub>q</sub>O-, -(CHR<sup>6</sup>)<sub>q</sub>S-, -(CHR<sup>6</sup>)<sub>q</sub>S(O)<sub>2</sub>-, -(CHR<sup>6</sup>)<sub>q</sub>S(O)- , -(CHR<sup>6</sup>)<sub>q</sub>NR-, or -(CHR<sup>6</sup>)<sub>q</sub>C(O)-, wherein q is 0, 1, 2, or 3; and
- f) Ar<sup>2</sup> is ring **a**, **b**, **e**, **g**, **h**, **i**, **j**, **k**, **n**, **r**, **ec**, **dd**, **ff**, **jj**, **ll**, or **pp**, wherein t is 0, 1, 2, or 3, and each occurrence of TR<sup>7</sup> is independently -C<sub>1-3</sub>alkyl, -OR', -SR', -CF<sub>3</sub>, -OCF<sub>3</sub>, -SCF<sub>3</sub>, -F, -Cl, I, -Br, -COOR', -COR', -O(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -O(CH<sub>2</sub>)N(R)(R'), -O(CH<sub>2</sub>)<sub>4</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>CON(R)(R'), -O(CH<sub>2</sub>)CON(R)(R'), -C(O)N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>OR', -(CH<sub>2</sub>)<sub>3</sub>OR', -(CH<sub>2</sub>)<sub>2</sub>OR', -CH<sub>2</sub>OR', optionally substituted phenyl or benzyl, -N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -(CH<sub>2</sub>)N(R)(R'), -SO<sub>2</sub>N(R)(R'), -NRSO<sub>2</sub>R', -CON(R)(R'), or -OSO<sub>2</sub>R'.

43. (Previously presented) The compound of claims 38, 39 or 40, wherein Ar<sup>2</sup> is optionally substituted phenyl and compounds of general formula **XX-A**, through **XXXVII** are provided:

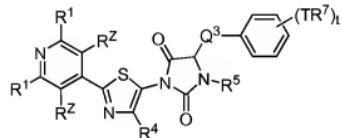
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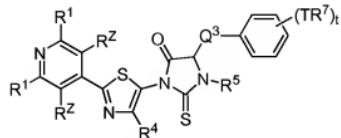
XX-A



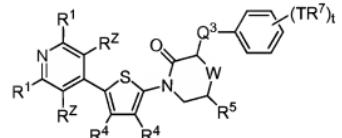
XXI-A



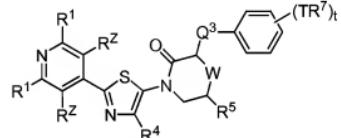
XXII-A



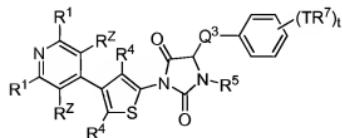
XXIII-A



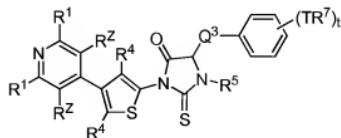
XXIV-A



XXV-A

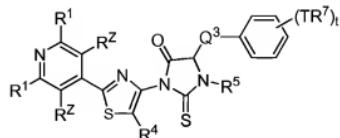
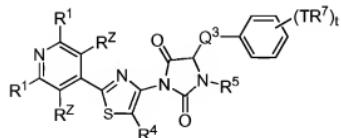
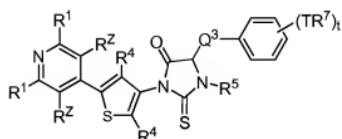
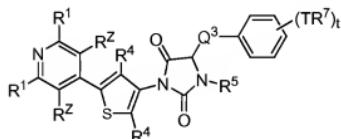
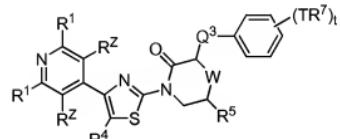
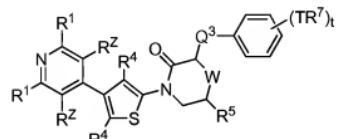
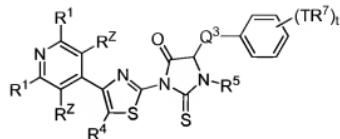
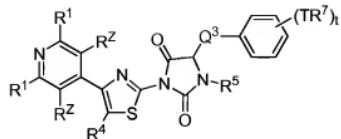


XXVI-A

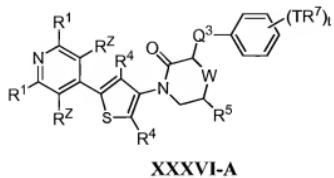


XXVII-A

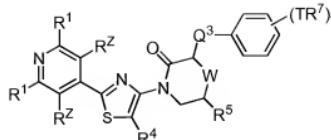
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XXXVI-A



XXXVII-A.

44. (Previously presented) The compound of claim 43, wherein compound variables are selected from:

each occurrence of R<sup>1</sup> is hydrogen;

each occurrence of R<sup>Z</sup> is hydrogen;

each occurrence of R<sup>4</sup> is independently hydrogen, C<sub>1-6</sub>aliphatic, CN, CON(R)<sub>2</sub>, or halogen;

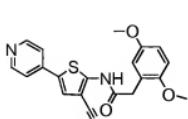
R<sup>5</sup> is hydrogen, (CH<sub>2</sub>)<sub>3</sub>OR', (CH<sub>2</sub>)<sub>2</sub>OR', (CH<sub>2</sub>)OR', (CH<sub>2</sub>)<sub>3</sub>N(R')<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>N(R')<sub>2</sub>, (CH<sub>2</sub>)N(R')<sub>2</sub>, or C<sub>1-4</sub>aliphatic;

Q<sup>3</sup> is a direct bond, or is -(CHR<sup>6</sup>)<sub>q</sub>-, -(CHR<sup>6</sup>)<sub>q</sub>O-, -(CHR<sup>6</sup>)<sub>q</sub>S-, -(CHR<sup>6</sup>)<sub>q</sub>S(O)<sub>2</sub>-, -(CHR<sup>6</sup>)<sub>q</sub>S(O)-, -(CHR<sup>6</sup>)<sub>q</sub>NR-, or -(CHR<sup>6</sup>)<sub>q</sub>C(O)-, wherein q is 0, 1, 2, or 3; and

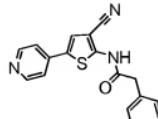
t is 0, 1, 2, or 3, and each occurrence of TR<sup>7</sup> is independently -C<sub>1-3</sub>alkyl, -OR', -SR', -CF<sub>3</sub>, -OCF<sub>3</sub>, -SCF<sub>3</sub>, -F, -Cl, I, -Br, -COOR', -COR', -O(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -O(CH<sub>2</sub>)N(R)(R'), -O(CH<sub>2</sub>)<sub>4</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>3</sub>CON(R)(R'), -O(CH<sub>2</sub>)<sub>2</sub>CON(R)(R'), -O(CH<sub>2</sub>)CON(R)(R'), -C(O)N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>OR', -(CH<sub>2</sub>)<sub>3</sub>OR', -(CH<sub>2</sub>)<sub>2</sub>OR', -CH<sub>2</sub>OR', optionally substituted phenyl or benzyl, -N(R)(R'), -(CH<sub>2</sub>)<sub>4</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>3</sub>N(R)(R'), -(CH<sub>2</sub>)<sub>2</sub>N(R)(R'), -(CH<sub>2</sub>)N(R)(R'), -SO<sub>2</sub>N(R)(R'), -NRSO<sub>2</sub>R', -CON(R)(R'), or -OSO<sub>2</sub>R'.

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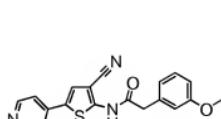
45. (Previously presented) The compound of claim 1, having one of the structures:



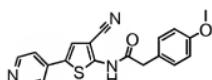
I-A-1



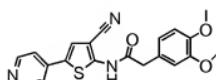
I-A-2



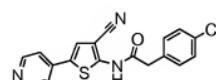
I-A-3



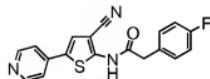
I-A-4



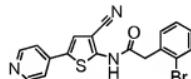
I-A-5



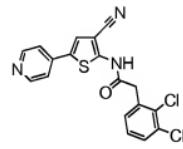
I-A-6



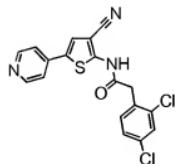
I-A-7



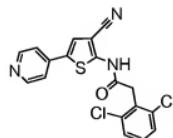
I-A-8



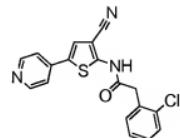
I-A-9



I-A-10

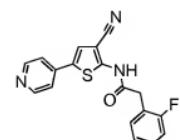
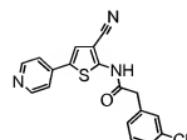
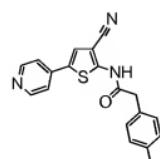
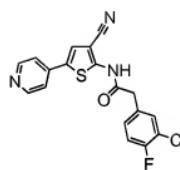
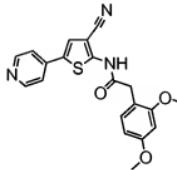
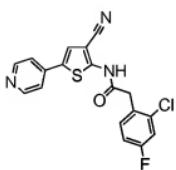
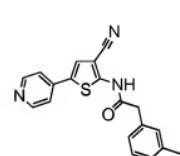
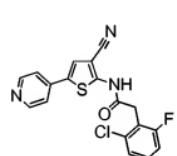
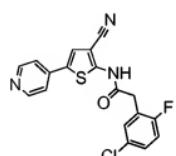
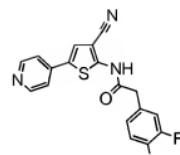
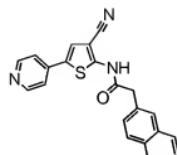
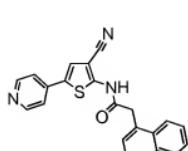


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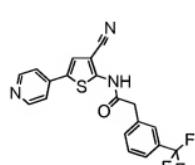


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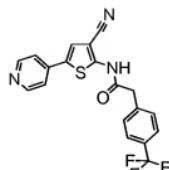
Applicants: Jingrong Cao et al.  
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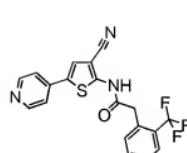
Applicants: Jingrong Cao et al.  
Application No.: 10/696,862



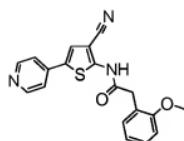
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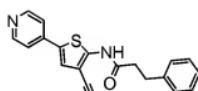
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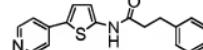
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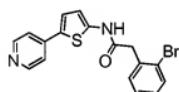
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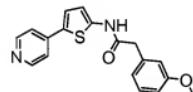
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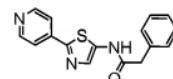
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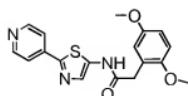
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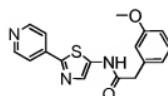
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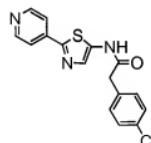
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I-A-34

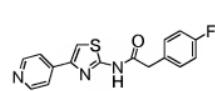
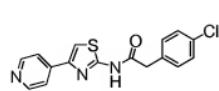
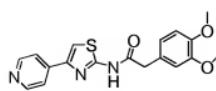
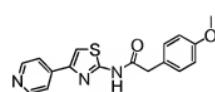
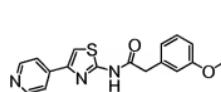
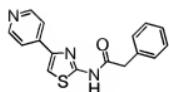
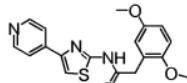
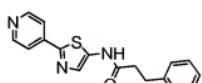
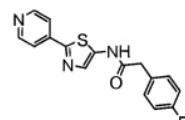
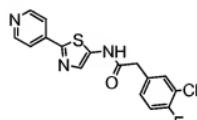
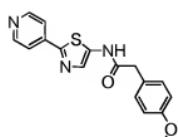
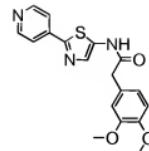
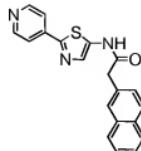
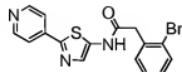


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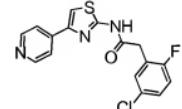
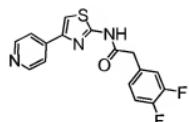
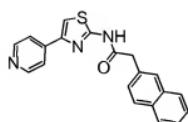
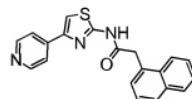
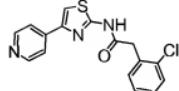
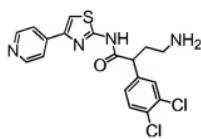
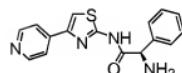
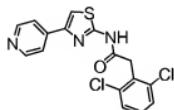
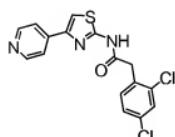
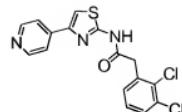
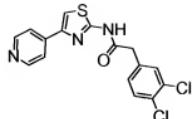
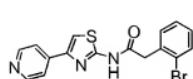


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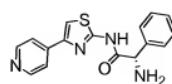
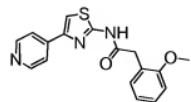
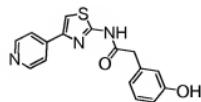
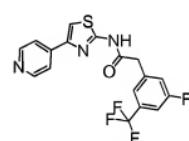
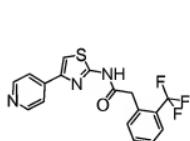
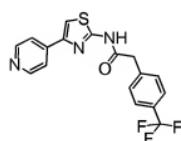
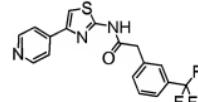
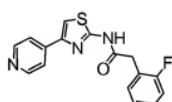
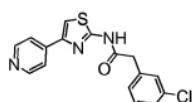
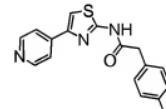
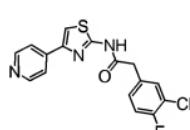
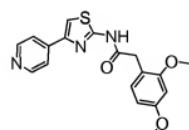
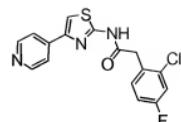
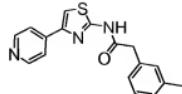
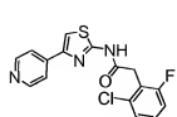
Applicants: Jingrong Cao et al.  
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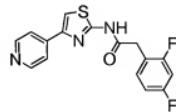
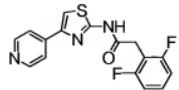
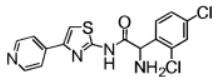
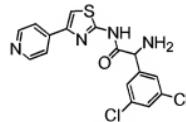
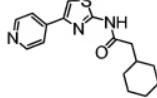
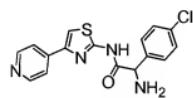
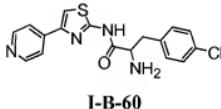
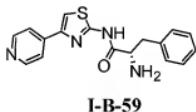
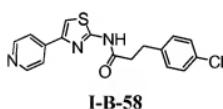
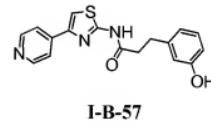
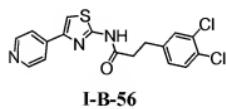
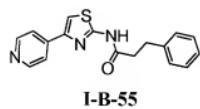
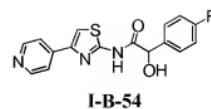
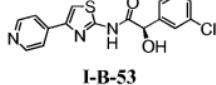
Applicants: Jingrong Cao et al.  
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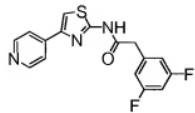
Applicants: Jingrong Cao et al.  
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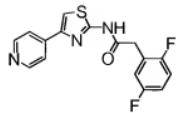
Applicants: Jingrong Cao et al.  
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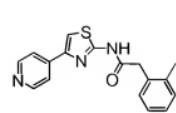
Applicants: Jingrong Cao et al.  
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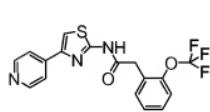
I-B-67



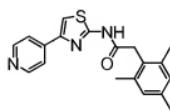
I-B-68



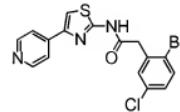
I-B-69



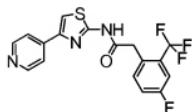
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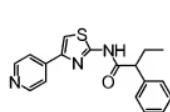
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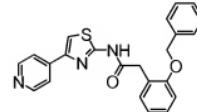
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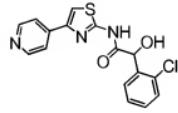
I-B-73



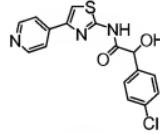
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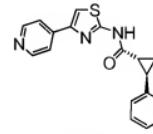
I-B-75



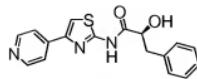
I-B-76



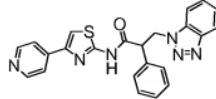
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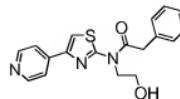
I-B-78



I-B-79

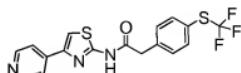
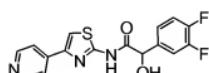
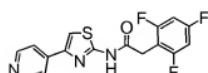
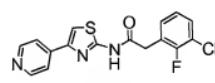
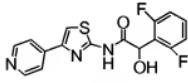
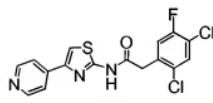
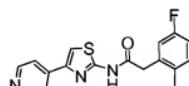
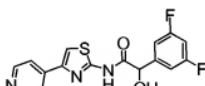
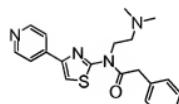
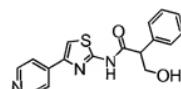
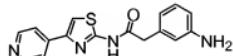
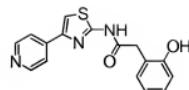
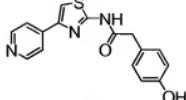
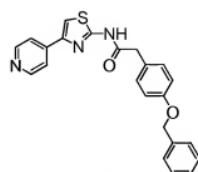


I-B-80

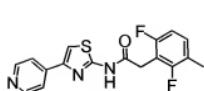


I-B-81

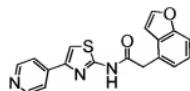
Applicants: Jingrong Cao et al.  
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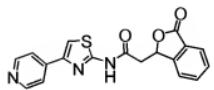
Applicants: Jingrong Cao et al.  
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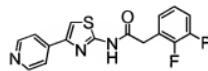
I-B-97



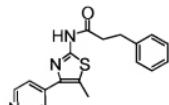
I-B-99



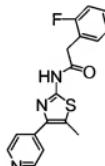
I-B-100



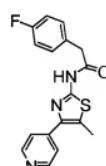
I-B-102



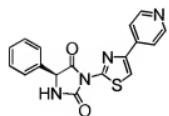
I-B-103



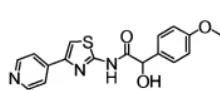
I-B-104



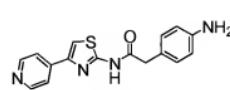
I-B-105



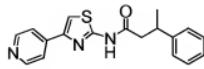
I-B-106



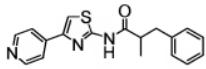
I-B-107



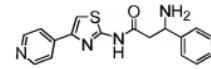
I-B-108



I-B-109

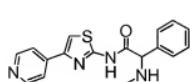


I-B-110

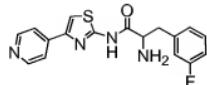


I-B-111

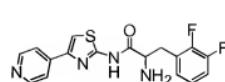
Applicants: Jingrong Cao et al.  
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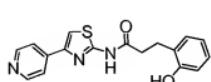
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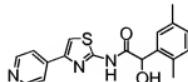
I-B-113



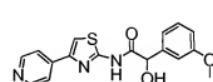
I-B-114



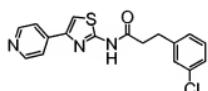
I-B-115



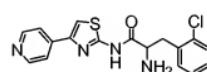
I-B-116



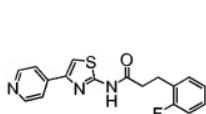
I-B-117



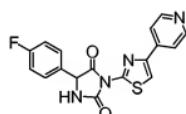
I-B-119



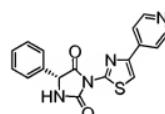
I-B-120



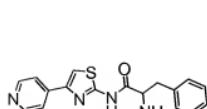
I-B-121



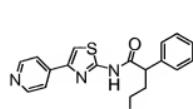
I-B-122



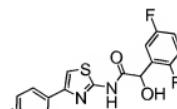
I-B-123



I-B-124

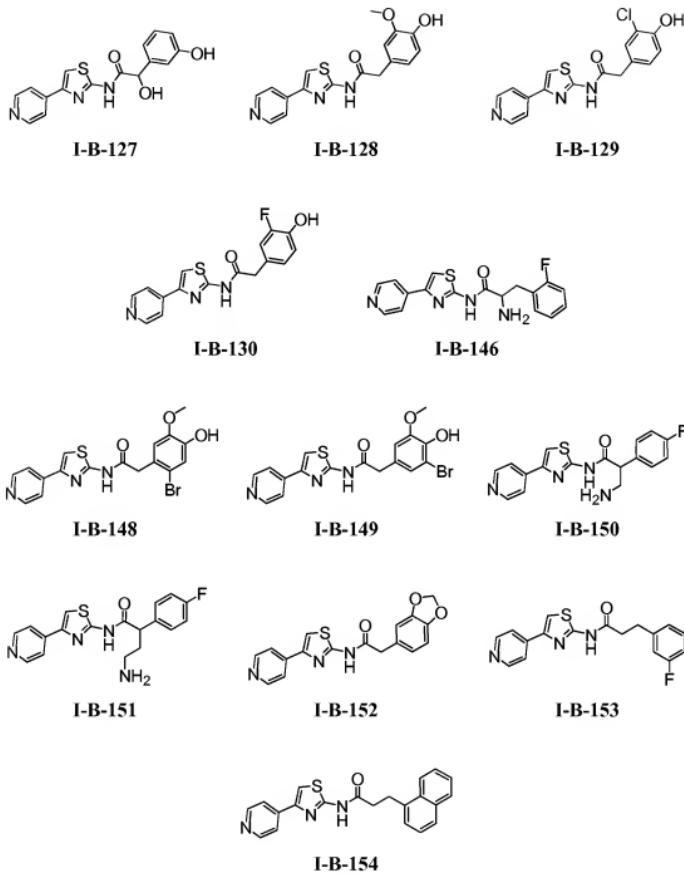


I-B-125

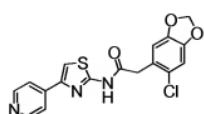
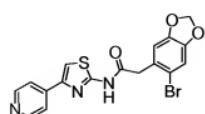
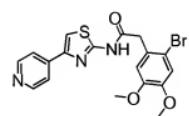
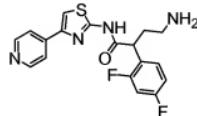
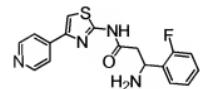
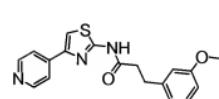
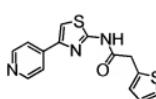
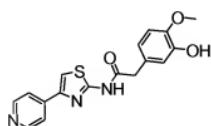
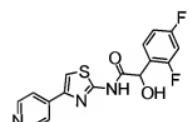
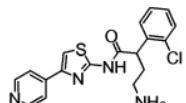
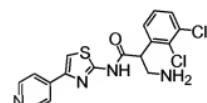
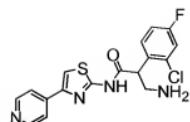
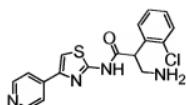
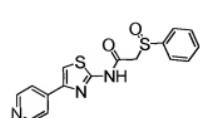


I-B-126

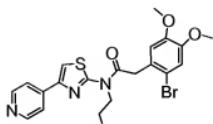
Applicants: Jingrong Cao et al.  
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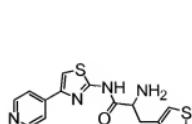
Applicants: Jingrong Cao et al.  
Application No.: 10/696,862



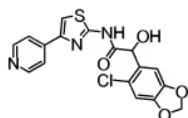
Applicants: Jingrong Cao et al.  
Application No.: 10/696,862



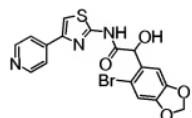
I-B-181



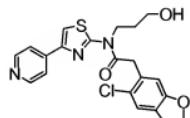
I-B-182



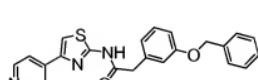
I-B-185



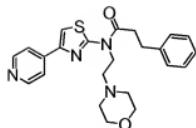
I-B-186



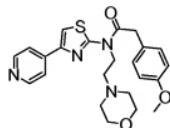
I-B-187



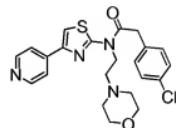
I-B-190



I-B-192

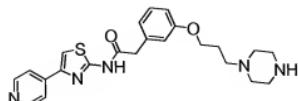
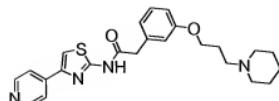
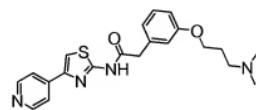
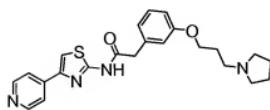
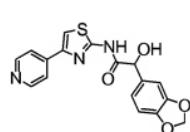
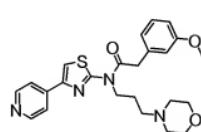
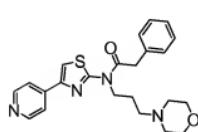
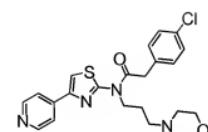
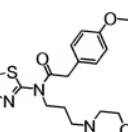
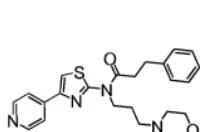
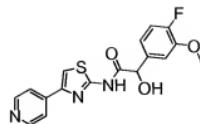
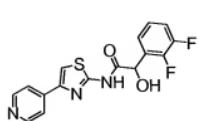


I-B-193

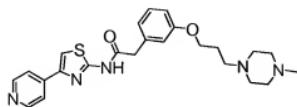


I-B-194

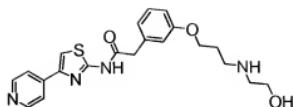
Applicants: Jingrong Cao et al.  
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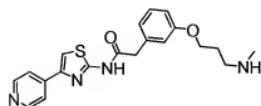
Applicants: Jingrong Cao et al.  
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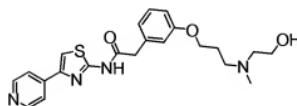
**I-B-209**



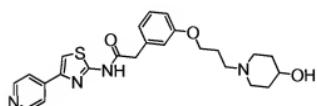
**I-B-210**



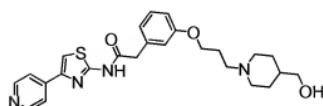
**I-B-211**



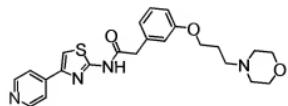
**I-B-212**



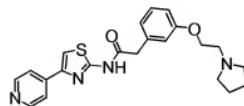
**I-B-213**



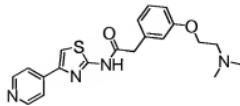
**I-B-214**



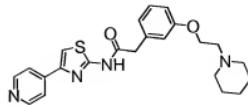
**I-B-215**



**I-B-216**

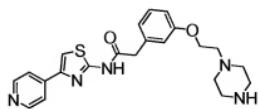


**I-B-217**

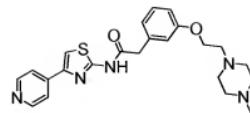


**I-B-218**

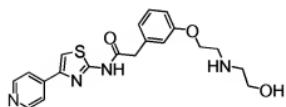
Applicants: Jingrong Cao et al.  
Application No.: 10/696,862



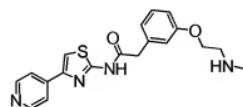
**I-B-219**



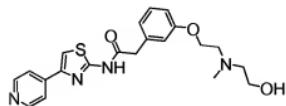
**I-B-220**



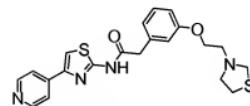
**I-B-221**



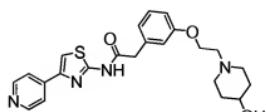
**I-B-222**



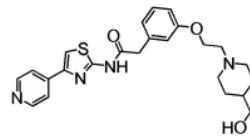
**I-B-223**



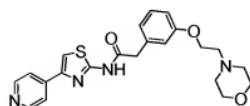
**I-B-224**



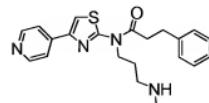
**I-B-225**



**I-B-226**

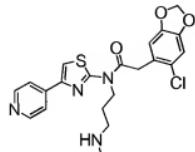


**I-B-227**

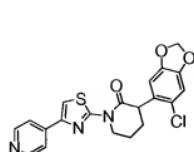


**I-B-228**

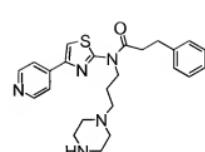
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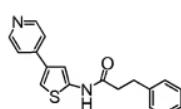
I-B-229



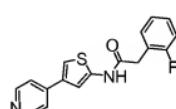
I-B-230



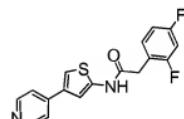
I-B-231



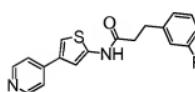
I-B-240



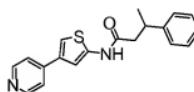
I-B-241



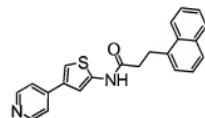
I-B-242



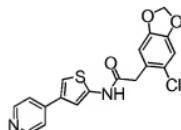
I-B-243



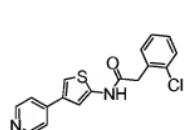
I-B-244



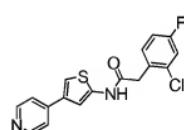
I-B-245



I-B-246

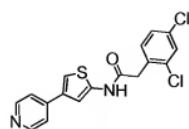


I-B-247

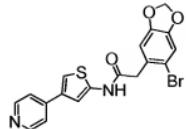


I-B-248

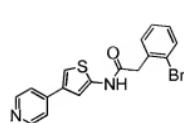
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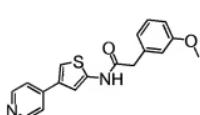
I-B-249



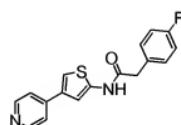
I-B-250



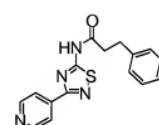
I-B-251



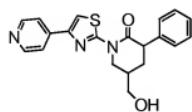
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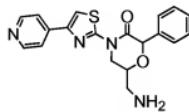
I-B-253



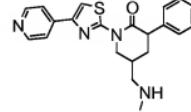
I-B-254



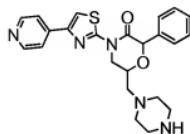
I-B-275



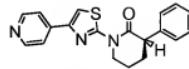
I-B-276



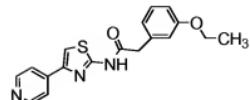
I-B-277



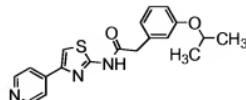
I-B-278



I-B-279

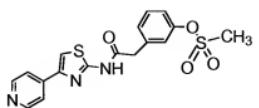


I-B-280

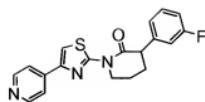


I-B-281

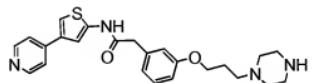
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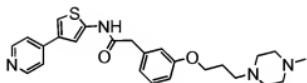
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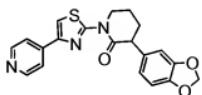
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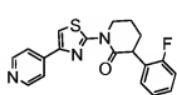
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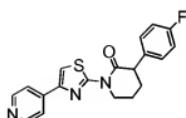
J-B-285



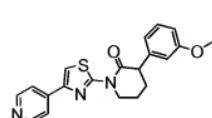
I-B-286



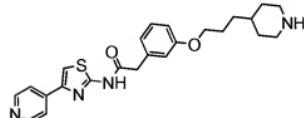
I-B-287



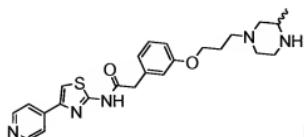
J-B-288



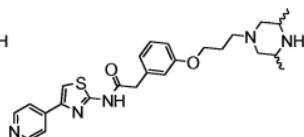
J-B-289



J-B-290

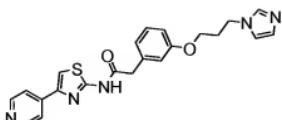


J-B-291

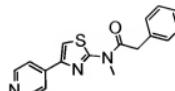


J-B-292

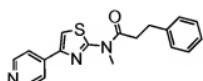
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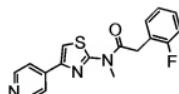
I-B-293



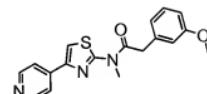
I-B-294



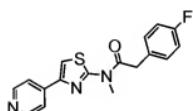
I-B-295



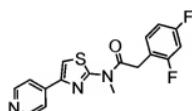
I-B-296



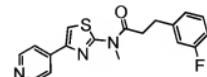
I-B-297



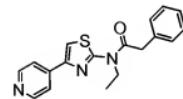
I-B-298



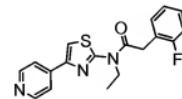
I-B-299



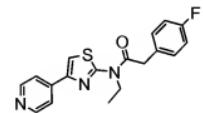
I-B-300



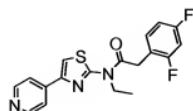
I-B-301



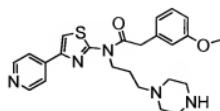
I-B-302



I-B-303

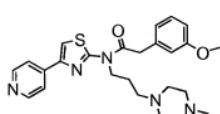


I-B-304

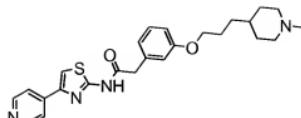


I-B-306

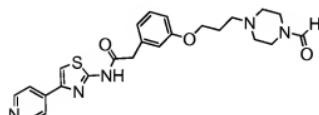
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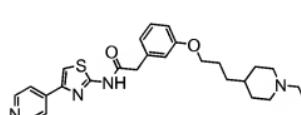
I-B-307



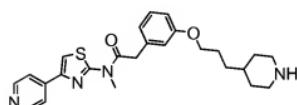
I-B-308



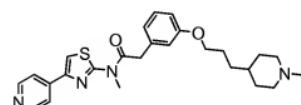
I-B-309



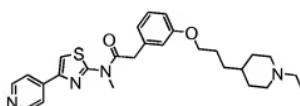
I-B-312



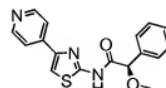
I-B-313



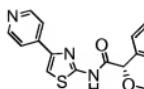
I-B-314



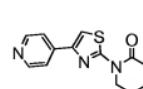
I-B-315



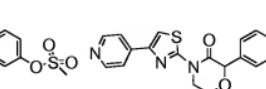
I-B-321



I-B-322

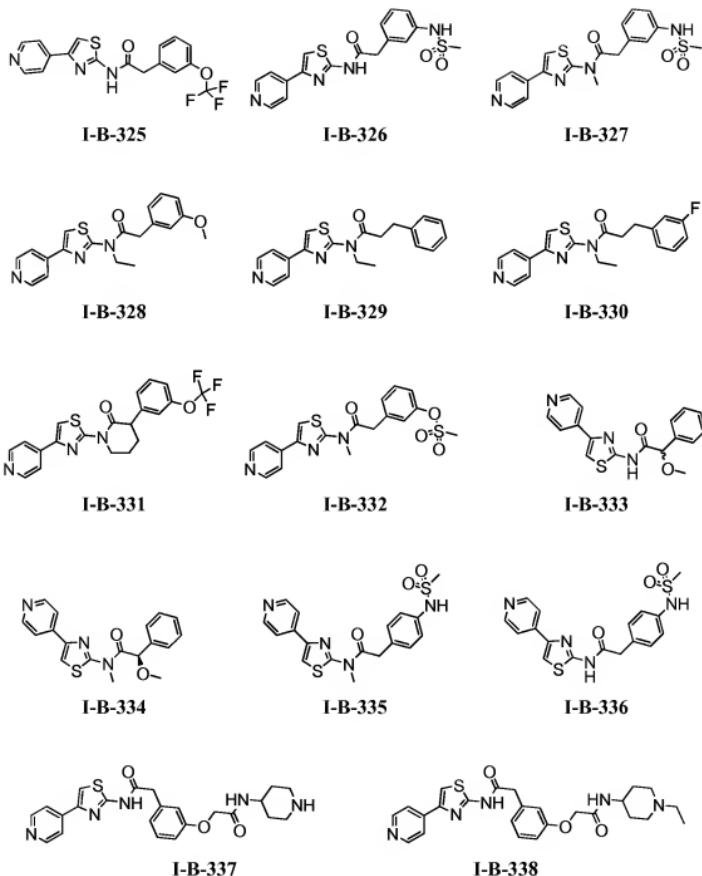


I-B-323

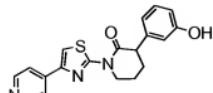


I-B-324

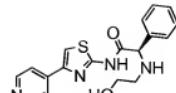
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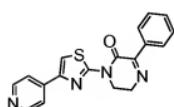
Applicants: Jingrong Cao et al.  
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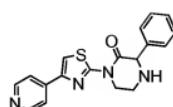
I-B-339



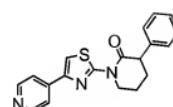
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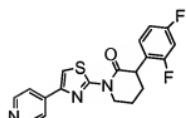
I-B-341



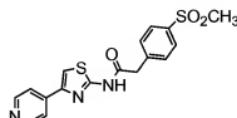
I-B-342



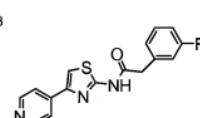
I-B-343



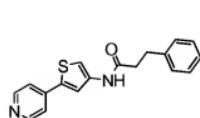
I-B-344



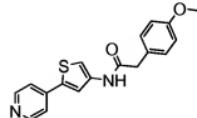
I-B-345



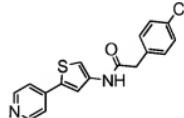
I-B-346



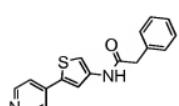
I-C-1



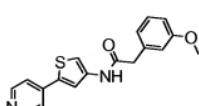
I-C-2



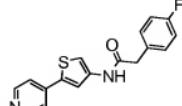
I-C-3



I-C-4

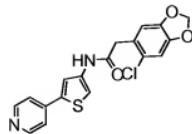


I-C-5

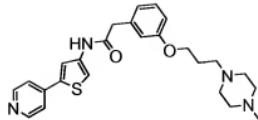


I-C-6

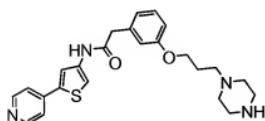
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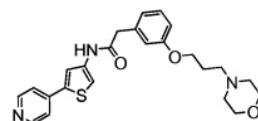
I-C-7



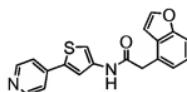
I-C-8



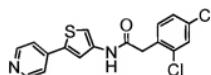
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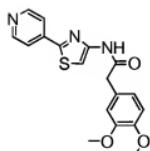
I-C-10



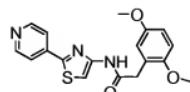
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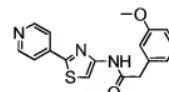
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I-C-13

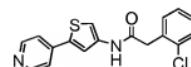
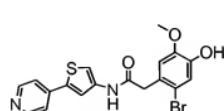
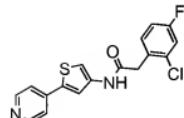
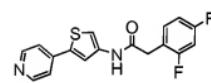
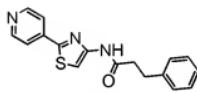
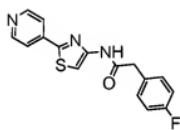
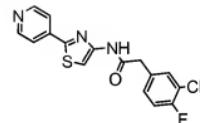
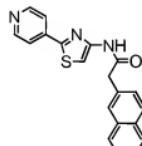
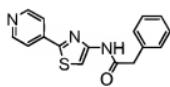
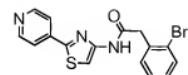
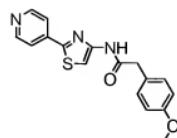
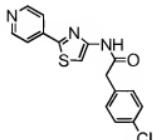


I-C-14

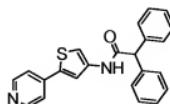
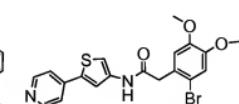
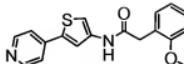
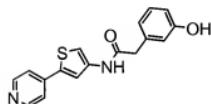
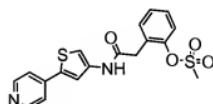
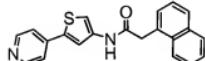
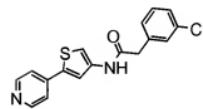
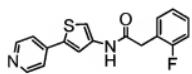
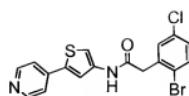
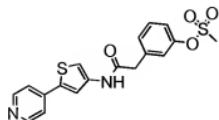


I-C-15

Applicants: Jingrong Cao et al.  
Application No.: 10/696,862



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Application No.: 10/696,862

46. (Original) A composition comprising an effective amount of compound of claim 1, and a pharmaceutically acceptable carrier, adjuvant, or vehicle.

47-53. (Canceled)

54. (Previously presented) A method of treating or lessening the severity of a disease or disorder selected from glaucoma, Alzheimer's disease, an allergy, asthma, or diabetes in a patient, said method comprising administering to said patient a compound according to claim 1.

55. (Previously presented) The method of claim 54, wherein said method is used to treat or lessen the severity of an allergy or asthma.

56. (Previously presented) The method of claim 54, wherein said method is used to treat or lessen the severity of diabetes.

57. (Previously presented) The method of claim 54, wherein said method is used to treat or lessen the severity of glaucoma.